



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Northwest Region
7600 Sand Point Way N.E., Bldg. 1
Seattle, WA 98115

Refer to:

OSB1999-0058

April 26, 1999

Don Ostby
Forest Supervisor
Umpqua National Forest
P.O. Box 1008
2900 Stewart Parkway
Roseburg, Oregon 97470

Re: Section 7 Consultation on Actions Affecting Umpqua River Cutthroat Trout and Oregon Coast
Coho Salmon

Dear Mr. Ostby:

This responds to requests for consultation on actions that you feel are "likely to adversely affect" (LAA) Umpqua River cutthroat trout (UR cutthroat). In a December 17, 1998, letter you requested that Endangered Species Act (ESA) consultation be completed on two dozen Emergency Repair of Federally-Owned Road (ERFO) actions for which the Umpqua National Forest (UNF) had initiated consultation per a March 24, 1998, letter. Consultation had not been completed on the LAA actions described in the March 24 letter because of the reorganization of consultation procedures that has occurred in response to Judge Rothstein's April 28, 1998, ruling on several ESA consultations in the Umpqua River basin. Your December 17 submission is intended to supplement the Biological Assessment (BA) on these actions provided with your March 24 letter, and you believe that your submission on these actions responds to the perceived shortcomings identified in the litigation. We will address all 24 of the LAA actions in this letter, the purpose of which is to document our biological opinion (BO) that the proposed actions are not likely to jeopardize the continued existence of the potentially affected anadromous salmonid species listed under the ESA, as explained below.

The BA and supplemental information you provided describe the environmental baseline and effects of 24 proposed ERFO actions in the North Umpqua Ranger District (NURD). The ERFO actions were prompted by flood and earth-flow damage to the roads in 1996 and 1997 and include both road repair and decommissioning in the Steamboat, Middle North Umpqua, and Little River watersheds of the North Umpqua River. Funding for ERFO projects comes from the Federal Highway Administration (FHWA) and is specific to identified ERFO sites. As a consequence, the UNF cannot repair, decommission, or conduct other road-related restoration activities with ERFO funding at locations other than those specified by the FHWA. This consultation on UNF actions is conducted under section 7(a) (2) of the ESA and its implementing regulations, 50 CFR Part 402.



The UR cutthroat (*Oncorhynchus clarki clarki*) was listed as endangered under the ESA by the NMFS on August 9, 1996 (61 FR 41514), and critical habitat for this species was designated on January 9, 1998 (63 FR 1388). The Oregon Coast OC coho salmon (OC coho, *O. kisutch*) and OC steelhead trout (*O. mykiss*) Evolutionarily Significant Units (ESUs) were proposed as threatened under the ESA by NMFS on July 25, 1995 (60 FR 38011), and August 9, 1996 (61 FR 41541), respectively. The OC coho and OC steelhead ESUs were reclassified as candidates for listing under the ESA by NMFS on May 6, 1997 (62 FR 24588), and March 19, 1998 (63 FR 13347), respectively, but the OC coho was subsequently listed as threatened on August 10, 1998 (63 FR 42587). Because of the OC coho listing, we have considered your LAA determination for this species simultaneously along with UR cutthroat in this consultation. This is because the NMFS has adopted a habitat-based “jeopardy” analysis (NMFS 1997a, 1997b, and 1997c) and because OC coho habitat is completely overlapped by that of UR cutthroat in these proposed actions.

UNF personnel made the effects determinations in the BA following procedures described in NMFS (1997a, 1997b, and 1997c). The effects of the individual actions proposed in the BA were evaluated by UNF biologists at the project scale using criteria based upon the biological requirements of UR cutthroat and other potentially affected anadromous salmonids and the Aquatic Conservation Strategy (ACS) objectives of the Northwest Forest Plan (NFP) (USDA and USDI 1994). The UNF biologists also evaluated the likely effects of the proposed actions on the watershed scale, and in the long-term, in the context of watershed processes. The Level 1 streamlined consultation team for the UNF has defined “long-term” for ESA consultation purposes as about a decade, while short-term effects would occur for a lesser period, most typically a few months to a few years. The Level 1 streamlined consultation team for the UNF met on December 4, 1998, to review the UNF’s effect determinations and documentation of ACS consistency for the subject actions. The team concurred on the ACS consistency analysis and effects determination.

Proposed Actions

The “proposed actions” are road repair and decommissioning activities in the Steamboat Creek, Middle North Umpqua, and Little River fifth field hydrologic unit codes¹ (HUC) of the North Umpqua River, in Douglas County, Oregon. Specifically, in the Steamboat Creek fifth field HUC (a fifth field HUC will be considered a “watershed” for consultation purposes), road repairs at three sites are proposed for the Lower Steamboat Face, Singe Creek, and Reynolds Creek sixth field HUCs, and

¹ Stream drainages can be arranged in nested hierarchies, in which a large drainage is composed of smaller drainages. The UNF uses a system in which these drainages are numbered in a computer data base for analytical purposes. The numerical identifier of a particular drainage in this data base (which is located in a specific column or “field” in the data base), is called its hydrologic unit code, or HUC. This HUC increases with decreasing drainage area, thus a fourth field HUC (such as the North Umpqua River) is composed of several fifth field HUCs (such as Steamboat Creek, Little River, etc.), and so on. The NFP determined that the scale for Watershed Analyses should be 20 to 200 square miles, which often corresponds to a fifth field HUC.

24.4 miles of four roads are proposed for decommissioning in the Big Bend, Singe Creek, and Reynolds Creek sixth field HUCs. In the Middle North Umpqua watershed, road repairs at seven sites and decommissioning of 2.1 miles of one road are proposed for the Cougar, Panther, Jack, Bogus, and Thunder Creek sixth field HUCs. Finally, in the Little River watershed, road repairs at seven sites and 3.2 miles of road decommissioning are proposed for the Black Creek, Upper Little River, Flat Rock Branch, and Little River Canyon sixth field HUCs. An Environmental Assessment (EA), a Biological Evaluation (BE), and other documents, which were appended to the UNF's BA or were later provided to the NMFS, have detailed information on each of the actions but brief summaries are provided below.

In the Steamboat Creek watershed, the UNF proposes to repair one site on the 3800 road, one site on the 3810 road, and one site on the 3850 road. The sites were damaged by slumps (3800 and 3810) and a debris avalanche (3850), and the repairs proposed include the installation of retaining walls, removal of fill, and road resurfacing. The UNF also proposes to decommission 21.2 miles of the 3817 road, 1.4 miles of the 3810 road, and 1.8 miles of the 3816-230 road. Decommissioning, which would not leave a driveable surface, includes the following measures:

- Removal of culverts,
- restoration of stream profiles to their pre-culvert contours,
- removing steep road and landing fills—thus substantially lessening or eliminating mass wasting risk, and
- eliminating the hydrologic effect of road drainage ditches.

In some cases, decommissioned roads would be subsoiled to allow establishment of vegetation and more effective infiltration and soil permeability. Many of the proposed repairs would occur within Riparian Reserves (RR) of streams, as would some of the road decommissioning. Work in the streams would occur during the Oregon Department of Fish and Wildlife (ODFW) in-water work period of July 1 through September 15.

In the Middle North Umpqua watershed, the UNF proposes to repair one site each on the 4714, 4712, 4713-100, 4710, and 4710-480 roads, and two sites on the 2703 road. The sites were damaged by road settlement (4714), hillslope failure (4713-100), cutslope failure (one 2703) or debris avalanche (4712, 4710-480, 4710, and the other 2703). Proposed repairs include cutting into a hillslope; installation of a retaining wall and a buttress; removal and/or addition of fill or slide; removal, installation, or replacement of cross-drain or stream crossing culverts or low-water ford; and road resurfacing. The UNF also proposes to decommission all 2.1 miles of the 4711-300 road. Many of the proposed repairs would occur within stream RR, as would some of the road decommissioning, and in-water work would occur during the ODFW-approved period.

In the Little River watershed, the UNF proposes to repair one site each on the 2700-111, 2700-095, 2719, and 4714 roads, and three sites on the 2700 road. The sites were damaged by road settlement

(2700-111 and 2700-095), cutslope failure (all three 2700), or debris avalanche (2719 and 4714). Proposed repairs include installation of retaining walls and/or buttresses; removal and/or addition of fill or slides; removal, installation, or replacement of cross-drain or stream crossing culverts; and road resurfacing. The UNF also proposes to decommission 1.9 miles of the 2719-020 road and all 1.3 miles of the 2792-003 road. Many of the proposed repairs would occur within stream RR, as would some of the road decommissioning, and in-water work would occur during the ODFW-approved period.

Biological Information and Critical Habitat

The biological requirements, including the elements of critical habitat, of each of the ESUs are discussed in NMFS (1997b and 1997c). Environmental baseline conditions in the Umpqua Basin are discussed in Johnson *et al.* (1994), pages 2-7 of NMFS (1997c) and pages 13-14 of NMFS (1997b). Cumulative effects as defined under 50 CFR 402.02 are discussed for the Umpqua Basin on pages 40-43 of the NMFS (1997b). These respective analyses are incorporated herein by this reference. NMFS is not aware of any newly available information that would materially change these previous analyses of biological requirements, environmental baseline or cumulative effects for the purpose of this Opinion. Some general biological information is provided below.

UR cutthroat inhabit the Umpqua River Basin of southwest Oregon and the Evolutionarily Significant Unit (ESU) consists of resident, potamodromous, and anadromous life histories. Individuals of all three forms have the potential to inhabit the Steamboat Creek, Middle North Umpqua, and Little River watersheds. UR cutthroat are known to be year-around inhabitants (using rearing, feeding, spawning, and incubation habitat) of all of the subject watersheds. The watersheds are likely used as migration corridors by both adults and juveniles of the ESU. Historically, adult anadromous cutthroat trout passed Winchester Dam on the North Umpqua River predominantly from late June through November, with peaks in mid-July and mid-October. Juvenile outmigration is thought to occur chiefly from March through October (Johnson *et al.* 1994).

OC coho are an anadromous species which typically have a three-year life-cycle, and occur in all three subject watersheds. Adults spawn in the late fall and winter, with fry emergence occurring the following spring. Juvenile coho salmon rear for about a year in natal streams, and then outmigrate to the ocean as smolts in the spring. Some male coho return to freshwater to spawn the fall and winter of the same year as their smolt migration, but the majority of adult OC coho do not return to spawn until having spent about 18 months in the ocean. Thus, an active OC coho stream would be used for some life-stage as rearing, feeding, spawning, and incubation habitat year-round.

The UNF's Watershed Analysis (NURD and BLM 1995) documents that the Little River watershed as a whole provides about 48 miles of habitat for anadromous fish and another 70 miles of resident fish habitat. The Steamboat Creek watershed (not counting Canton Creek) has approximately 52 miles of stream that support anadromous fish, and about another 57 miles of stream with resident fish (personal

communication, Glenn Harkleroad, Fishery Biologist, NURD, April 1, 1999). A similar estimate for the Middle North Umpqua watershed is not available, but many miles of stream in the watershed support resident and/or anadromous fish.

Although general information about the populations of UR cutthroat and OC coho within the subject watersheds is available (e.g., those streams likely inhabited, see above), specific information on the size and health of anadromous fish populations in the Umpqua Basin is often lacking or incomplete. Because of the general paucity of the type of information that would allow the UNF and NMFS to assess the relative health of anadromous salmonid populations on a stream or watershed scale, and the fact that all fish species, populations, and individuals depend on adequate habitat, the NMFS uses a habitat-based system in ESA consultation on land-management activities (NMFS 1997c). The NMFS has applied the concept of properly functioning habitat condition to assess the quality of the habitat that fish need to survive and recover. This concept is discussed in the next section.

Site-specific environmental baseline descriptions and effects determinations were made by UNF personnel for each of the proposed actions. This information is found in the project-level (sixth field HUC) Matrices of Pathways and Indicators (MPIs) which were provided to the NMFS subsequent to submission of the BA. In addition, watershed-level information on UR cutthroat and OC coho habitat is provided in the fifth field MPI included in the BA. The NMFS concurred with these project and watershed-scale environmental baseline descriptions and effects determinations in the streamlined consultation process and NMFS considered them in addition to the broad scale analysis done for NMFS (1997b) described above.

Evaluation of Proposed Actions

The standards for determining jeopardy are set forth in Section 7(a)(2) of the ESA as defined by the consultation regulations (50 CFR Part 402). NMFS (1997a) describes how NMFS applies the ESA jeopardy and destruction/adverse modification of critical habitat standards to consultations for Federal land management actions in the Umpqua River basin.

As described in NMFS (1997a), the first steps in applying the ESA jeopardy standards are to define the biological requirements of UR cutthroat and OC coho and to describe the species' current status as reflected by the environmental baseline. In the next steps, NMFS' jeopardy analysis considers how proposed actions are expected to directly and indirectly affect specific environmental factors that define properly functioning aquatic habitat essential for the survival and recovery of the species. This analysis is set within the dual context of the species' biological requirements and the existing conditions under the environmental baseline (defined in NMFS 1997c). The analysis takes into consideration an overall picture of the beneficial and detrimental activities taking place within the action area, which is defined as "all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action"

(50 CFR 402.02). If the net effect of the activities is found to jeopardize the listed species, then NMFS must identify any reasonable and prudent alternatives to the proposed action.

Biological Requirements. For this consultation, NMFS finds that the biological requirements of UR cutthroat and OC coho are best expressed in terms of current population status and environmental factors that define properly functioning freshwater aquatic habitat necessary for survival and recovery of the species. The NMFS defines this “properly functioning” condition as the state in which all of the individual habitat factors operate together to provide a healthy aquatic ecosystem that meet the biological requirements of the fish species of interest. Individual, measurable habitat factors (or indicators) have been identified (e.g., water temperature, substrate, etc.) and the “properly functioning” values for these indicators have been determined using the best information available. These indicators, when considered together, provide a summary of the conditions necessary to ensure the long-term survival of aquatic species.

The NMFS has assembled a set of these indicators in a form called the Matrix of Pathways and Indicators (MPI) (NMFS 1996). The MPI is a table that lists several categories or “pathways” of essential salmonid habitat such as water quality, instream habitat elements, and flow/hydrology. Under these pathways are quantitative habitat indicators for which ranges of values are identified that correspond to a “properly functioning” condition, an “at risk” condition, and a “not properly functioning” condition. Because these habitat measurements are more readily available than quantitative measurements of biological variables such as incubation success, standing crop, and growth rate, the NMFS and UNF are able to assess the health of stream reaches or watersheds based on the condition of their component indicators. Such an assessment provides a baseline description of the health of the stream or watershed, and also allows the effects of an action (e.g., road-related activities) to be evaluated.

Properly functioning watersheds, where all of the individual factors operate together to provide healthy aquatic ecosystems, are necessary for the survival and recovery of the listed species. It follows then that the NMFS has determined that an action which would cause the habitat indicators of a watershed to move to a degraded condition, or one which further degrades a “not properly functioning” watershed, is also likely to jeopardize the continued existence of the listed species.

In addition to the use of the MPI at the watershed level to assist in making “jeopardy” determinations in Section 7 consultations (especially for land management agencies), the NMFS also uses the MPI at the site or project scale. Assuming that a Federal agency determines that an action is a “may affect,” either informal or formal consultation is required. To assist in this determination, the action agency prepares a project-level MPI. If no “degrades” occur at this scale, then the action is probably not likely to adversely affect individuals of a listed species, and an informal Section 7 consultation is appropriate. If the proposed action degrades any of the indicators at this smaller scale (often the sixth or seventh field HUC), then the action is generally considered to be a “likely to adversely affect,” and formal consultation must occur.

Current range-wide status of listed species under environmental baseline. NMFS described the current population status of the UR cutthroat in its status review (Johnson *et al.* 1994) and in the final rule (August 9, 1996; 61 FR 41514). Critical habitat for UR cutthroat was designated by the NMFS on January 9, 1998 (63 FR 1338). NMFS also described the current population status of OC coho in a status review (Weitkamp *et al.* 1995) and in the final rule (August 10, 1998; 63 FR 42587). The recent range-wide status of both these species is summarized in NMFS (1997c).

Current status of listed species under environmental baseline within the action areas. As noted above, the “action area” includes all areas directly or indirectly affected by the proposed action. The general action areas can be defined as the Steamboat Creek, Middle North Umpqua, and Little River watersheds.

As noted above, UR cutthroat and OC coho use the action areas as rearing, feeding, spawning, and incubation habitat as well as a migration corridor. The environmental baseline of the action areas are dominated by conditions rated largely as “not properly functioning” or “at risk” (see watershed MPIs in BA). These conditions are likely the result of past forest management and agricultural practices; in particular, timber harvest/clearing within riparian zones, large-scale clear-cut timber harvest, road construction (especially within riparian zones), and timber yarding in riparian zones and streams.

Indicators particularly at issue in this consultation are those which would likely be degraded by the proposed actions at the project scale, although the NMFS has also reviewed the UNF’s “maintain” and “restore” effects determinations. In this case “sediment and turbidity” was often, but not always, determined to be degraded at the project scale by these actions. The “sediment and turbidity” indicator was listed as “at risk” for the Steamboat Creek watershed,” “at risk” for the Middle North Umpqua watershed, and “not properly functioning” for the Little River watershed.

Based on the best information available on the current status of UR cutthroat and OC coho (NMFS 1997c), NMFS assumptions given the information available regarding population status, population trends, and genetics (NMFS 1997a), and the relatively poor environmental baseline conditions within the action areas (see MPIs in BA and UR cutthroat and OC coho final listing rules), NMFS finds that the environmental baseline does not currently meet all of the biological requirements for the survival and recovery of the listed species within the action area. Actions that do not retard attainment of properly functioning aquatic conditions, when added to the environmental baseline, are necessary to meet the needs of the species for survival and recovery.

Analysis of Effects

The effects determinations in this opinion were made using a method for evaluating current aquatic conditions (the environmental baseline) and predicting effects of actions on them. This process is described in NMFS (1996). This assessment method, in which MPIs are assembled by action agency

biologists, was designed for the purpose of providing adequate information in a tabular form for NMFS to determine the effects of actions subject to consultation.

The UNF uses the MPI to make project-level effects determinations—whether an action is “not likely to adversely affect” or “likely to adversely affect” (LAA) the ESA-listed species (in this case, UR cutthroat and OC coho). If any of the indicators is thought to be degraded at the project level by the action, the action is determined to LAA. In turn, if a project was determined to LAA the ESA-listed species, then based on the “jeopardy” standard delineated in NMFS (1997b), the UNF must determine whether the project, when combined with the environmental baseline for the watershed over the long-term, is consistent with the ACS of the NFP. This “consistency” is condensed to a two-part test in NMFS (1997a, *pg. 14*): Is the proposed action in compliance with the standards and guidelines for the relevant land allocation and does the proposed action meet all pertinent ACS objectives. This determination is made with the assistance of the MPI at the watershed scale.

Project-Level Effects. The UNF-provided MPIs for the effects of actions are expressed in terms of the expected effect (restore, maintain, or degrade) on aquatic habitat factors in the project area for each sixth field HUC affected by the proposed actions. The results of the completed checklist for the proposed action provides a basis for determining the effects of the action on the environmental baseline in the project area. In general, the UNF determined the actions would not degrade indicators at the project level, chiefly because the actions would not affect many of the indicators and because of the “Best Management Practices” (BMPs) that would be employed.

The UNF found that on the project level, the “sediment and turbidity” indicator would be degraded by all of the proposed actions, except for the proposed repairs and decommissioning on the 3810 road in the Steamboat Creek watershed and one of the proposed repairs to the 2703 road in the Cougar Creek sixth field HUC of the Middle North Umpqua watershed, where that indicator would be maintained. In addition, the UNF found that the decommissioning proposed for the 3817 road, also in the Steamboat Creek watershed, would restore the “peak/base flows,” “drainage network,” and “road density and location” indicators. The UNF also attributed a “restore” to the “road density and location” indicator for decommissioning work on the 2719-020 road in the Little River watershed. The UNF attributes the “degrade” checkmarks for “sediment and turbidity” to a transitory increase in stream sedimentation due to road repair and decommissioning. Regarding the “restore” checkmarks, the NMFS concurs that the action would move many of the indicators toward restoration. However, we have not obtained data that any of the indicators would be moved fully to the “restore” category in the short-term. Because of the presence of the “degrades” checkmarks on the project scale, caused by possible short-term, localized sedimentation, the UNF determined that the North Umpqua Ranger District ERFO projects (except for the noted actions on the 3810 and 2703 roads) are likely to adversely affect UR cutthroat and OC coho. The NMFS concurs with the UNF on these project-level effect determinations.

Watershed-Level Effects. In the BA, the UNF provided watershed-scale MPIs for the actions along with ACS Consistency reviews. The watershed-scale MPIs evaluate the effects of the proposed action on habitat indicators in the fifth field HUC relative to the long-term environmental baseline. That is, while many actions (including those that may be beneficial in the long-term) have short-term, small-scale adverse effects, only those actions which would adversely affect the environmental baseline over an entire watershed over a long period would receive a “degrade” checkmark. It is important to realize that both active and passive restoration activities contribute to the environmental baseline. In particular, the passive restoration that will occur over the long-term (at least a decade, see above), especially in RRs, is a principal component of the watershed recovery aspect of the NFP. The role of RRs, LSRs, etc., in restoration of watersheds is described in the NFP Record of Decision (USDA and USDI 1994) and in NMFS (1997b).

The BA included a description of how the proposed projects compared to the applicable NFP standards and guidelines (S&Gs) for the listed ESUs and how the proposed projects complied with the nine ACS objectives for those ESUs. Because there is strong correspondence between the habitat indicators of the MPI and the ACS objectives, it is likely that if none of the habitat indicators in the watershed level MPI is degraded by an action, then compliance with ACS objectives for the ESUs is also achieved. In the descriptions below, only those MPI habitat indicators which were determined to “degrade” at the sixth field HUC are discussed; similarly, the S&Gs and ACS objectives which may be of issue are noted. Whether discussed below or not, information on all of the habitat indicators, relevant S&Gs, and ACS objectives was provided in the UNF’s BA and was considered in our analysis.

Steamboat Creek watershed. For this watershed, a Tier 1 Key Watershed under the NFP, the UNF has proposed to repair three ERFO sites and decommission 24.4 miles of road. The UNF determined that all of the habitat indicators would be maintained at the watershed scale, despite the project-level “degrades” which were recorded in the Lower Steamboat Face, Reynolds Creek, and Big Bend Creek sixth field HUCs. As noted under “Project-level effects” above, the “sediment and turbidity” indicators in these HUCs were thought to be degraded due to road decommissioning and repair. In the long-term and at the watershed scale, however, these “degrades” were not thought to be consequential because of their short-term and highly localized nature. In fact, the action is beneficial over the long-term because road repair is likely to diminish the adverse effects of roads by preventing or minimizing future landslides, etc., and by allowing the drainage design features to work properly; and decommissioning should have even greater beneficial effects to the watershed. Based on UNF data, over the long-term, the repair work proposed would prevent up to 115 cubic yards (cy) of sediment from entering the stream system, and the decommissioning proposed would prevent up to nearly 21,500 cy from eroding into streams. During the next ten years, other UNF actions in the Steamboat Creek watershed will be proposed but all of the Federal land in the Steamboat Creek watershed will be protected as LSR and will be protected from non-restorative activities. Based on the information provided in the BA for the proposed Steamboat Creek ERFO actions, it appears that all of the relevant S&Gs would be observed by the UNF and that compliance with the nine ACS objectives would be achieved. In addition, the

repair and decommissioning proposed are consistent with Steamboat Creek's status as a Tier 1 Key Watershed and the District's focus on this watershed for restoration activities. The draft watershed analysis for Middle/Lower Steamboat Creek (NURD 1999) specifically recommends road decommissioning for the Big Bend subwatershed and selects the Lower Steamboat Face subwatershed as a high priority for restoration; the proposed action will decommission 21.2 miles of road in the Big Bend sixth-field HUC and will repair one site in the Lower Steamboat Face sixth field HUC. It should be noted that the draft watershed analysis will be finalized within a few weeks; the roadwork recommendations will not change (personal communication, Barbara Fontaine, Resource Planner, NURD, April 1, 1999). While the draft WA cites the Singe and Reynolds Creek subwatersheds as only of low-moderate priority for restoration, the WA also recommends an opportunistic approach to road mileage reduction that would take advantage of storm damage-related funding (such as ERFO). The 1.4 and 1.8 miles of road decommissioning proposed for the Singe and Reynolds Creek sixth field HUCs complies with this recommendation. The proposed road repairs in the Singe and Reynolds Creek subwatersheds, as noted above, are consistent with Key Watershed status and NURD restoration focus of Steamboat Creek. Also, the funding for the repairs is specific to the 6-20-97 and 6-22-97 ERFO sites and thus could not be used to restore areas of higher priority.

Middle North Umpqua watershed. For this watershed, which is not a Key Watershed under the NFP, the UNF has proposed to repair seven ERFO sites and decommission 2.1 miles of road. The UNF determined that all of the habitat indicators would be maintained at the watershed scale, despite the project-level "degrades" which were recorded in the Panther, Jack, Bogus, and Thunder Creek sixth field HUCs. As noted under "Project-level effects" above, the "sediment and turbidity" indicators in these HUCs were thought to be degraded due to road decommissioning and repair. In the long-term and at the watershed scale, however, these "degrades" were not thought to be consequential because of their short-term and highly localized nature. As in the Steamboat Creek watershed, the action is beneficial over the long-term because road repair is likely to diminish the adverse effects of roads by preventing or minimizing future landslides, etc., and by allowing the drainage design features to work properly; and decommissioning should have even greater beneficial effects to the watershed. Based on UNF data, over the long-term, the repair work proposed would prevent up to 1,935 cy of sediment from entering the stream system, and the decommissioning proposed would prevent an undetermined amount of soil from eroding into streams.

During the next ten years, other UNF actions in the Middle North Umpqua watershed will be proposed but about 70% of the watershed will be protected as LSR or Congressionally Withdrawn (North Umpqua River corridor). In addition, a minimum of 22% of the remaining Matrix land will be protected as RR. It should be noted that the actual proportion of RR in the watershed is substantially higher because much of the RR protecting intermittent streams has not been incorporated into the database (personal communication, Scott Lightcap, Fishery Biologist, NURD, November 30, 1998). Therefore, while timber sales that will likely be proposed during the next decade on Federal land, approximately three-quarters of the Federal forest land in the watershed (and all of the RR—the most important portion, from an anadromous fish viewpoint) will be protected from non-restorative activities. If

relatively small amounts of timber harvest, etc., are proposed for non-reserved lands, these actions should not retard the recovery of the watershed as a whole.

Based on the information provided in the BA for the proposed ERFO projects in the Middle North Umpqua watershed, it appears that all of the relevant S&Gs would be observed by the UNF and that compliance with the nine ACS objectives would be achieved. In addition, although the repair or decommissioning of other roads on the UNF may be of higher priority for restoration, the proposed actions are not inconsistent with the Middle North Umpqua's status as a non-Key Watershed or the District's focus on the Steamboat Creek watershed for restoration activities; because the funding for the activities is specific to the identified ERFO sites and thus is not transferable to other areas of the UNF. A watershed analysis has not yet been completed for this watershed, so the action does not respond to a watershed analysis recommendation.

Little River watershed. For this watershed, which is not a Key Watershed under the NFP, the UNF has proposed to repair seven ERFO sites and decommission 3.2 miles of road. The UNF determined that all of the habitat indicators would be maintained at the watershed scale, despite the project-level "degrades" which were recorded in the Black Creek, Upper Little River, Flat Rock Branch, and Little River Canyon sixth field HUCs. As noted under "Project-level effects" above, the "sediment and turbidity" indicators in these HUCs were thought to be degraded due to road decommissioning and repair. In the long-term and at the watershed scale, however, these "degrades" were not thought to be consequential because of their short-term and highly localized nature. As in the Steamboat Creek watershed, the action is beneficial over the long-term because road repair is likely to diminish the adverse effects of roads by preventing or minimizing future landslides, etc., and by allowing the drainage design features to work properly; and decommissioning should have even greater beneficial effects to the watershed. Based on UNF data, over the long term, the repair work proposed would prevent up to 950 cy of sediment from entering the stream system, and the decommissioning proposed would prevent up to more than 5,100 cy from eroding into streams.

During the next ten years, other UNF actions in the Little River watershed will be proposed but a minimum of 25% of the Federal forest land in the Little River watershed (which is classified as an Adaptive Management Area) will be protected as RR. It should be noted that the actual proportion of RR in the watershed is substantially higher because much of the RR protecting intermittent streams has not been incorporated into the database (personal communication, Barbara Fontaine, Resource Planner, NURD, March 24, 1999). Because at least a quarter of the Federal forest land in the watershed (the most important portion, from an anadromous fish viewpoint) will be substantially protected from non-restorative activities, if relatively small amounts of regeneration harvest, etc., are proposed for non-RR lands, these actions should not retard the recovery of the watershed as a whole.

Based on the information provided in the BA for the proposed ERFO projects in the Little River watershed, it appears that all of the relevant S&Gs would be observed by the UNF and that compliance with the nine ACS objectives would be achieved. In addition, although the repair or

decommissioning of other roads on the UNF may be of higher priority for restoration, the proposed actions are not inconsistent with the Little River's status as a non-Key Watershed or the District's focus on the Steamboat Creek watershed for restoration activities; because the funding for the activities is specific to the identified ERFO sites and thus is not transferable to other areas of the UNF. In addition, the Little River Watershed Analysis specifically recommends restoration of the sediment regime in the Flat Rock Branch where the UNF proposes 1.9 miles of road to be decommissioned.

Effects Summary. NMFS has considered the applicability of these analyses to each of the actions identified in the BA and in this letter. The NMFS is not aware of any other special characteristics of the particular actions that would cause greater or materially different effects on the subject salmonid species and their habitat than is discussed in these references. Similarly, NMFS is not aware of any newly available information that would materially change these previous effects analyses. Portions of all of the watersheds discussed in this Opinion are privately owned, and the NMFS assumes that the cumulative effects of non-Federal land management practices will continue at similar intensities as in recent years (NMFS 1997b).

The effects of the actions on UR cutthroat and OC coho and their habitat are presented in the BA prepared by the UNF, specifically in the project and watershed-level MPIs, BE, ACS Consistency Review, engineering reports, and the EA. NMFS finds those descriptions to be adequate for this analysis. Based on this information, the NMFS does not consider these actions to be likely to result in more effects than expected or considered in NMFS (1997b). In particular, the UNF determined, and the NMFS concurred, that relevant NFP S&Gs would be followed and that ACS objectives would be met at the watershed scale and in the long-term when the effects of the proposed actions are combined with the environmental baseline. This ACS consistency determination was made because the UNF showed that, despite the potential short-term adverse effects of their proposed actions, watershed habitat indicators would be maintained or restored over the long-term.

The NMFS expects that ACS objectives which may be affected by the subject actions will be met because potential sediment input from proposed road repair and decommissioning will be minimized by implementation of appropriate BMPs. In addition, the long-term effects of these actions should be beneficial because of lessened sediment and hydrologic effects from existing and former roads.

Section 7(a)(2) Determinations

The NMFS concludes that, when the effects of these proposed site specific actions are added to the environmental baseline and cumulative effects occurring in the relevant action areas, they are not likely to jeopardize the continued existence of UR cutthroat trout or OC coho salmon.

Additionally, the NMFS concludes that the proposed actions would not cause adverse modification or destruction of UR cutthroat critical habitat. This is because our “no jeopardy” conclusion is based on the effects of the actions on UR cutthroat habitat, and because the “adverse modification or destruction of habitat” standard is defined similarly to the “jeopardy” standard. Because we have determined that the actions would not jeopardize the continued existence of UR cutthroat, it follows that UR cutthroat critical habitat would not be adversely modified or destroyed.

In reaching these conclusions, NMFS has utilized the best scientific and commercial data available as documented herein and by the BA and documents incorporated by reference.

Incidental Take Statement

Effects resulting from road-related activities (e.g., sedimentation) are expected to be the source of incidental take associated with the proposed actions covered by this Opinion. Because of the implementation of appropriate mitigation measures for the road-related activities, sediment impacts are expected to be minimized.

Adverse effects of management actions such as these are largely unquantifiable in the short-term and may not be measurable as long-term effects on the species’ habitat or population levels. Therefore, even though the NMFS expects some low level of incidental take to occur as a result of these actions, the best scientific and commercial data available are not sufficient to enable NMFS to estimate a specific amount of incidental take to the species themselves. The adverse effects of the actions, however, should be confined to the sub-watersheds in which the actions are proposed to occur.

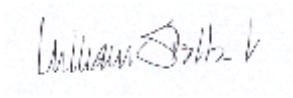
The incidental take statement in NMFS (1997b) provided reasonable and prudent measures and terms and conditions to avoid or minimize the take of listed salmonids from beneficial road-related actions (pgs. 64 and 70) that may be applied to site-specific actions, if appropriate. NMFS hereby applies the findings, reasonable and prudent measures, and terms and conditions set forth in the Incidental Take Statement of NMFS (1997b) to the relevant site-specific actions.

Conclusions

This concludes formal consultation on these actions in accordance with 50 CFR 402.14(b)(1). The UNF must reinitiate this ESA consultation if: (1) The amount or extent of taking specified in the incidental take statement above, is exceeded; (2) new information reveals effects of the action that may affect listed species in a way not previously considered; (3) the action is modified in a manner that causes an effect to the listed species that was not previously considered; or (4) a new species is listed or critical habitat designated that may be affected by identified action.

If you have any questions, please contact Dan Kenney of my staff at (541) 957-3385.

Sincerely,

A handwritten signature in dark ink, appearing to read "William Stelle, Jr.", with a stylized flourish at the end.

William Stelle, Jr.
Regional Administrator

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